I
Library
MINISTRY OF HEALTH LIBRARY

RURAL DISTRICT OF CASTLE WARD

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

AND OF

THE CHIEF PUBLIC HEALTH INSPECTOR AND CLEANSING SUPERINTENDENT

FOR 1966

OFFICERS OF THE PUBLIC HEALTH DEPARTMENT

Medical Officer of Health and Airport Medical Officer	H. C. T. SMITH, M.B., CH.B., D.P.H., D.P.A.
Acting Medical Officer of Health and Deputy Airport Medical Officer	H. J. NICHOLSON, M.B., CH.B.
Deputy Airport Medical Officers	W. LATIMER, M.B., B.S. P. J. BURNETT, M.B., B.S., D.R.C.O.G.
Chief Public Health Inspector and Cleansing Superintendent	E. W. STRACHAN, M.R.S.H., M.A.P.H.I.
Deputy Chief Public Health Inspector and Cleansing Superintendent	J. TAYLOR, M.A.P.H.I.
Additional Public Health Inspector	R. HARDY, M.A.P.H.I.
Additional Public Health Inspector	F. W. HIGGINS, M.A.P.H.I.
Clerk Typist	Miss M. E. DOUGLAS
Clerk Typist (Assistant)	Mrs. A. RIDLEY
Rodent Operator	A. M. McLAREN
Offices	COUNCIL OFFICES, PONTELAND.
Telephone	PONTELAND 2372 - 6

Annual Report of the Medical Officer of Health

FOR THE YEAR ENDED 31st DECEMBER, 1966

COUNCIL OFFICES,
PONTELAND,
NEWCASTLE UPON TYNE.

MR. CHAIRMAN, LADIES AND GENTLEMEN,

It is my honour to present the report on the health of the district for 1966.

General and vital statistics and particulars of infectious disease and tuberculosis are set out. During 1966 this authority became responsible for the Public Health Control of Newcastle Airport and the arrangements made are described. Finally some facts, figures and comments, both national and local, are given on the subject of air pollution.

It has again been my privilege to work in friendly co-operation with many individuals both inside and outside the council offices. I would like to thank the members of the Council for their continued interest in and support of the work of the health department.

Yours faithfully,
H. C. T. SMITH,
Medical Officer of Health.

PARTICULARS OF DISTRICT :

Areas in acres	82,846
Registrar General's estimated population	33,470
Number of habitable houses (including 228 not separately assessed)	10,047
Sum represented by penny rate	£4,850
Rateable value	£1,150,041

CHANGES IN POPULATION :

1951	14,570
1956	17,470
1961	25,330
1962	26,590
1963	28,220
1964	29,310
1965	32,040
1966	33,470

VITAL STATISTICS - 1966

	Numbers *M.*	*F.*	*Total*	*Rates*
TOTAL LIVE BIRTHS	227	205	432	
Crude birth rate per 1,000 population				12.91
Comparability factor..				0.88
Adjusted birth rate per 1,000 population				11.36
ILLEGITIMATE LIVE BIRTHS	11	11	22	
Illegitimate live birth rate per 100 live births				5.09
STILLBIRTHS	3	4	7	
Stillbirth rate per 1,000 live and stillbirths				15.95
INFANT DEATHS (Deaths in first year)..	5	3	8	
Infant mortality rate per 1,000 live births				18.52
Legitimate infant mortality rate ..				14.63
ILLEGITIMATE INFANT DEATHS ..	1	1	2	
Illegitimate infant mortality rate ..				90.91
NEONATAL DEATHS (Deaths in the first four weeks)..	3	2	5	
Neonatal mortality rate per 1,000 live births				11.57
PERINATAL DEATHS (Deaths in first week plus stillbirths)	6	6	12	
Perinatal mortality rate per 1,000 live and stillbirths..				27.34
MATERNAL DEATHS (including abortion)			Nil	
TOTAL DEATHS	258	271	529	
Crude death rate per 1,000 population				15.81
Comparability factor..				0.70
Adjusted death rate per 1,000 population				11.07

COMPARISON WITH PREVIOUS YEARS

	Adjusted Birth Rate	Illegitimate live Birth Rate	Still-birth Rate	Infant Mortality Rate	Neonatal Mortality Rate	Perinatal Mortality Rate	Adjusted Death Rate
1956-60	16.2	1.7	15.9	17.4	13.4	29.0	11.0
1961-65	15.4	2.5	16.0	18.5	14.1	28.0	11.6
1961	15.9	1.4	23.2	16.7	16.7	39.5	11.8
1962	15.4	3.1	12.8	25.2	17.8	24.1	13.1
1963	16.6	2.7	14.8	24.6	18.5	30.4	11.0
1964	14.6	1.8	9.0	15.9	9.1	18.0	11.7
1965	14.7	3.7	20.0	10.2	8.2	27.9	10.2
1966	11.4	5.1	15.9	18.5	11.6	27.3	11.1

COMPARISON WITH OTHER AREAS — 1966

	Adjusted Birth Rate	Illegitimate birth Rate	Still birth Rate	Infant Mortality Rate	Neonatal Mortality Rate	Perinatal Mortality Rate	Maternal Mortality Rate	Adjusted Death Rate	Comparability Factors	
									Births	Deaths
England and Wales	17.7	7.9	15.4	19.0	12.9	26.3	0.26	11.7	—	—
Admin. County of Northumberland	15.1	5.1	16.8	20.1	13.5	28.1	0.13*	12.9	1.00	1.05
Urban Districts of Northumberland	15.5	5.1	17.0	20.0	13.2	28.0	0.16*	13.0	0.99	1.09
Rural Districts of Northumberland	14.0	5.2	15.8	20.6	14.8	28.5	Nil	11.4	1.05	0.85
South Area of Northumberland	14.0	4.5	10.9	17.5	12.3	21.1	0.65*	12.6	0.94	0.91
Castle Ward Rural District	11.4	5.1	15.9	18.5	11.6	27.9	Nil	11.1	0.88	0.70

* These three figures relate to a single death.

CAUSES OF INFANT DEATHS

	Under 1 week	1—4 *weeks*	4 *weeks* — 1 *year*
Intra-cranial haemorrhage ..	2	—	—
Prematurity	2	—	—
Haemolytic disease of new-born..	1	—	—
Pneumonia	—	—	1
Bronchitis	—	—	1
Congenital defect (Meningocoele)	—	—	1
	5	—	3

CAUSES OF STILLBIRTHS

Accidental haemorrhage	1
Post maturity	1
Placental insufficiency	3
Congenital defect (Atresia of ileum)	1
Cause unknown	1
	7

PLACE OF DEATH

	Home	Hospital and Institution	Total
A. Deaths in District ..	133	369	502
B. Outward Transfers ..	15	70	85
C. Remaining deaths in District (A—B)	118	299	417
D. Inward Transfers ..	108	4	112
E. Total deaths assigned district (C + D) ..	226	303	529

PRINCIPAL CAUSES OF DEATH

	Home		Hospital and Institution		TOTAL	
	No.	%	No.	%	No.	%
Cancer	43	(19.1)	14	(4.6)	57	(10.8)
Cerebro vascular disease	36	(15.9)	137	(45.5)	173	(32.7)
Heart and Circulatory disease..	82	(36.3)	103	34.0)	185	(34.9)
(Coronary thrombosis	56	(24.8)	23	(7.6)	79	(14.9))
Respiratory disease ..	24	(10.6)	25	(8.2)	49	(9.3)
All other disease ..	26	(11.5)	17	(5.6)	43	(8.1)
Violence	15	(6.6)	7	(2.6)	22	(4.2)
	226	(100)	303	(100)	529	(100)

CAUSES OF DEATH AT DIFFERENT AGES DURING 1966 IN THE RURAL DISTRICT OF CASTLE WARD

Cause of Death	Sex	Total All Ages	Under 4 weeks	4 weeks and under 1 year	Age in Years 1—	5—	15—	25—	35—	45—	55—	65—	75 and over
2 Tuberculosis, Non Pulmonary ..	M	1	—	—	1	—	—	—	—	—	—	—	—
	F	—	—	—	—	—	—	—	—	—	—	—	—
10 Malignant Neoplasm, Stomach	M	4	—	—	—	—	—	—	—	—	1	1	2
	F	4	—	—	—	—	—	—	—	—	1	1	2
11 Malignant Neoplasm, Lung Bronchus	M	18	—	—	—	—	—	—	—	3	6	9	—
	F	4	—	—	—	—	—	—	—	1	—	2	1
12 Malignant Neoplasm, Breast	M	—	—	—	—	—	—	—	—	—	—	—	—
	F	5	—	—	—	—	—	—	—	1	3	1	—
13 Malignant Neoplasm, Uterus	F	1	—	—	—	—	—	—	—	—	—	—	1
14 Other Malignant and Lymphatic Neoplasms ..	M	12	—	—	—	—	—	—	—	—	2	4	6
	F	8	—	—	—	—	—	—	—	—	1	2	5
15 Leukaemia, Aleukaemia ..	M	1	—	—	—	—	—	—	—	—	—	1	—
	F	—	—	—	—	—	—	—	—	—	—	—	—
16 Diabetes	M	2	—	—	—	—	—	—	—	—	—	1	1
	F	1	—	—	—	—	—	—	—	—	—	1	—
17 Vascular Lesions of Nervous System.. ..	M	76	—	—	—	—	—	—	—	3	5	16	52
	F	97	—	—	—	—	—	—	—	2	1	20	74
18 Coronary Disease, Angina ..	M	52	—	—	—	—	—	—	3	8	14	16	11
	F	27	—	—	—	—	—	—	1	—	4	9	13
19 Hypertension with Heart Disease	M	3	—	—	—	—	—	—	—	1	—	1	1
	F	4	—	—	—	—	—	—	—	—	1	1	2
20 Other Heart Disease ..	M	27	—	—	—	—	—	1	—	—	1	4	21
	F	53	—	—	—	—	—	—	—	—	1	8	44

21 Other Circulatory Disease ..	M	7	—	—	—	—	—	1	—	—	1	1	4
	F	12	—	—	—	—	—	—	—	1	1	3	7
22 Influenza	M	1	—	—	—	—	—	—	—	—	1	—	—
	F	1	—	—	—	—	—	—	—	—	—	1	—
23 Pneumonia	M	3	—	—	—	—	—	—	—	1	—	—	2
	F	13	—	1	—	—	—	—	—	—	—	4	8
24 Bronchitis	M	16	—	1	—	—	—	—	—	1	2	6	6
	F	4	—	—	—	—	—	—	—	1	—	1	2
25 Other Diseases of Respiratory System ..	M	6	—	—	—	—	—	—	—	1	—	2	3
	F	5	—	—	—	—	—	—	1	1	1	—	2
26 Ulcer of Stomach and Duodenum	M	—	—	—	—	—	—	—	—	—	—	—	—
	F	1	—	—	—	—	—	—	—	—	—	—	1
28 Nephritis and Nephrosis ..	M	1	—	—	—	—	—	—	—	—	—	1	—
	F	1	—	—	—	—	—	—	—	—	—	—	1
29 Hyperplasia of Prostate ..	M	1	—	—	—	—	—	—	—	—	—	—	1
31 Congenital Malformations ..	M	3	—	1	2	—	—	—	—	—	—	—	—
	F	1	—	—	—	—	—	—	—	1	—	—	—
32 Other Defined and Ill-Defined Diseases ..	M	13	3	—	—	—	—	—	—	—	2	4	4
	F	18	2	—	—	—	1	—	2	1	—	4	8
33 Motor Vehicle Accidents ..	M	5	—	—	1	—	1	1	—	—	1	—	1
	F	—	—	—	—	—	—	—	—	—	—	—	—
34 All Other Accidents ..	M	5	—	—	—	—	1	1	—	1	—	—	2
	F	9	—	—	—	—	—	—	—	—	—	1	8
35 Suicide	M	1	—	—	—	—	—	—	—	1	—	—	—
	F	2	—	—	—	—	—	—	1	—	1	—	—
TOTAL ALL CAUSES ..	M	258	3	2	4	—	2	4	3	20	36	67	117
	F	271	2	1	—	—	1	—	5	9	13	59	179

DEATHS FROM CANCER

		45+	55+	65+	75+	TOTAL
Oesophagus.. ..	M					
	F				1	1
Stomach	M		1	1	2	4
	F		1	1	2	4
Pancreas	M		1	1		2
	F			1		1
Colon	M		1	(1)	(1)	1 (2)
	F					
Rectum	M				1	1
	F		(1)	(1)	1	1 (2)
Lung	M	3	6	8 (1)		17 (1)
	F	1		1 (2)	(1)	2 (3)
Breast	M					
	F	1	2 (1)	1		4 (1)
Uterus						
	F				1	1
Prostate	M			(1)	1	1 (1)
Bladder	M				(1)	(1)
	F	1				1
Vulva	F				(1)	(1)
Site Unknown ..	M			1		1
	F				(1)	(1)
Tumor of spinal cord	M					
	F			(1)		(1)
Leukaemia	M			1		1
	F					
TOTALS	M	3	9	12 (3)	4 (2)	28 (5)
	F	3	3 (2)	4 (4)	5 (3)	15 (9)

Figures in brackets refer to deaths in hospitals and institutions within the district.

ACCIDENTAL DEATHS

		0—1	1—4	5—14	15—24	25—34	35—44	45—54	55—64	65—74	75+	Total
Motor Vehicle Accidents :												
Pedestrian/Car . .	M		1								1	2
Motor cycle/Car . .	M				1							1
Car/Stationary vehicle	M								1			1
Car/Lorry . .	M					1						1
			1		1	1			1		1	5
All other accidents :												
Falls :												
Fractured femur	M										1 (1)	1 (1)
	F										1 (4)	1 (4)
Other fractures	M											
	F									1	1 (1)	2 (1)
Coal gas poisoning	M											
	F										1	1
Burns (Industrial)	M					1						1
	F											
Gun shot wound	M							1				1
	F											
Asphyxia	M				(1)							— (1)
	F											
	M				(1)	1		1			1 (1)	3 (2)
	F									1	3 (5)	4 (5)

Figures in brackets refer to deaths in hospitals and institutions within the district

TUBERCULOSIS

NEW CASES, 1966

	New Cases				Inward Transfers			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
Age Periods	M.	F.	M.	F.	M.	F.	M.	F.
Under 1 ..	—	—	—	—	—	—	—	—
1—4 ..	—	—	—	—	—	—	—	—
5—14 ..	1	—	—	—	—	—	—	—
15—24 ..	—	2	—	—	—	1	—	—
25—34 ..	1	—	1	—	1	6	—	—
35—44 ..	—	—	—	—	—	1	—	—
45—54 ..	—	—	—	—	4	—	—	2
55—64 ..	—	—	—	—	2	1	—	—
65—74 ..	—	—	—	1	1	—	—	—
75+	—	—	—	—	—	—	—	—
Total ..	2	2	1	1	8	9	—	2

TUBERCULOSIS :

Comparison with previous years.

	New Cases		Inward Transfers		Deaths	
	Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary
Total 1951-55 ..	7	3	5	1	3	
Total 1956-60 ..	7	2	14	2	1	
Total 1961-65 ..	8	2	12	—	1	
1961 ..	13	2	16	1	1	
1962 ..	4	3	16	1	1	
1963 ..	7	1	10	—	2	
1964 ..	8	2	17	—	1	
1965 ..	8	2	2	—	1	
1966	4	2	17	2	1	

STATEMENT OF CASES OF TUBERCULOSIS, 1966

	No. of cases on Register at beginning of year		New Notifications		Inward Transfers		Number of cases removed from Register		Number of cases remaining at end of year	
	P.	N.P.	P.	N.P.	P.	N.P.	P.	N.P.	P.	N.P.
Males ..	72	24	2	1	8	—	48	5	34	20
Females	72	15	2	1	9	2	54	10	29	8
Total ..	144	39	4	2	17	2	102	15	63	28
	183		6		19		117		91	

Tuberculosis Register

During 1966 opportunity was taken of revising the tuberculosis register and our records were compared with those of the chest clinics and hospitals. This was a complicated task as persons from this area attend Newcastle East and Newcastle West, Hexham and Bedlington clinics. In addition some of the long stay hospital patients have tuberculosis. As a result 97 persons were taken off the register and 7 persons were added to it.

Capheaton Survey

Since 1945 there have been 13 new cases of tuberculosis in the Capheaton area and new cases came to light in 1965 and 1966. This is a much higher number of cases than would be expected. The position was discussed with the Chest Physician at Hexham, the Principal School Medical Officer, local doctors and neighbouring Medical Officers of Health but no common source for the new cases could be discovered. A skin test was done on the eight pre-school and the nine school children living in the area. Two children were positive as a result of previous B.C.G. vaccination. A further two children gave a doubtful result to the test but further investigation of these children was negative.

In October a visit of the Mass X Ray unit to Belsay, Capheaton, Kirkheaton and Wallridge was arranged. Letters were sent to all householders in the district and the local Councillors and Parish Council clerks also helped with publicity. The W.V.S. kindly agreed to help anyone having difficulty in getting to the unit. As a result 147 persons were X Rayed, a rather disappointing response. Of these, 5 persons were further investigated as a result of old lesions, but no new cases of tuberculosis were discovered.

YEARLY RETURN OF NOTIFICATIONS OF INFECTIOUS DISEASE - 1966

Disease	0 - 1	1 - 4	5 - 14	15 - 44	45 - 64	Age unknown	Total
Measles	20	233	150	4	—	6	413
Whooping Cough . .	2	9	4	1	—	—	16
Scarlet Fever. . . .	—	—	10	—	—	—	10
Dysentery	—	6	6	17	—	—	29

MONTH OF NOTIFICATION :

Disease	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Measles . .	6	23	32	12	22	24	57	95	20	23	26	73	413
Whooping Cough . .	—	1	5	7	—	—	—	—	—	—	3	—	16
Scarlet Fever . .	1	—	—	1	2	3	—	—	1	—	2	—	10
Dysentery	—	14	2	3	2	1	—	5	—	—	2	—	29

INFECTIOUS DISEASES

Dysentery

A small outbreak occurred at a mental hospital in February. Sporadic cases occurred in various parts of the area during the first half of the year. In August there was a small outbreak at Stamfordham and among the families of R.A.F. personnel at Ouston. All the outbreaks were due to Shigella sonnei.

Infective Hepatitis

A number of cases occurred in one area of Newbiggin Hall Estate between September 1965 and June 1966. Investigations were made at the local school but all the evidence indicated family and neighbourhood spread. Two cases also occurred in children attending a rural school but there was no further spread of the disease.

Smallpox

No contacts from the outbreak of minor smallpox in the Midlands came to this area. However, due to the requirements of the Spanish government during the outbreak that all persons from the United Kingdom should have a valid vaccination certificate the Health department had a busy time authenticating the vaccination certificates during the holiday season. On 3rd May 1966 when the first cases in the Midlands had just come to light a chartered flight with 80 persons was due to leave Newcastle Airport for Spain. These people were all vaccinated immediately prior to the flight and Mr. Strachan spent the morning at the Airport stamping the vaccination certificates.

Leprosy

The Public Health (Leprosy) Regulations 1966 made leprosy notifiable to the Medical Officer of Health of the District in which the patient resides and required the M.O.H. to keep a confidential register of any cases in his district. Previously the disease had been notifiable to the Chief Medical Officer of the Ministry of Health who had about 340 cases on his register. About 40 new cases come to light each year practically all of whom have contracted the infection abroad. Thus the disease is mainly a problem where there are large numbers of coloured immigrants. No cases have been reported in this area.

Scabies

This infective skin disease has become prevalent once again and an increased number of cases has occurred throughout the country and particularly in the larger centres. The department were concerned in two family outbreaks. Treatment and the disinfestation of clothing and bedding were arranged.

IMMUNISATION AND VACCINATION

Immunisation and vaccination are given according to the following schedule :—

	AGE	*VACCINE*
1	3 months	Triple Antigen (Diphtheria, Tetanus and Whooping Cough) and Oral Poliomyelitis
2	4 months	Triple Antigen
3	5 months	Triple Antigen and Oral Poliomyelitis
4	7 months	Oral Poliomyelitis
5	1—2 years	Smallpox Vaccination
6	2 years	Triple Antigen and Oral Poliomyelitis
7	4—5 years	Diphtheria/Tetanus and Oral Poliomyelitis
8	8—10 years	Diphtheria/Tetanus
9	10—12 years	B.C.G. (to those negative to skin test).

The following tables give the number of children immunised within the district. It would appear that a satisfactory number of children in the first two years of life are being immunised against diphtheria, tetanus, whooping cough and poliomyelitis. The situation regarding smallpox is not so satisfactory. When considering the figures for older children it has to be borne in mind that some schools are only visited for immunisation at two-yearly intervals.

	Year of Birth						Total
	1966	1965	1964	1963	1959-62	1950-58	
Diphtheria/Pertussis/Tetanus primary course (including a small number where only diphtheria / tetanus was given)	173	226	15	5	18	—	437
Tetanus primary course combined with Diphtheria reinforcing dose..	—	—	—	1	15	234	250
Diphtheria / Pertussis / Tetanus reinforcing doses	—	9	251	89	66	10	425
Diphtheria / Tetanus reinforcing doses (including a small number where tetanus or diphtheria only was given ..	—	—	10	12	388	524	934
Poliomyelitis primary course	136	232	27	14	58	54	521
Poliomyelitis reinforcing doses	—	4	255	78	445	217	999
Smallpox primary vaccinations	25	134	29	15	12	14	229
Smallpox re-vaccination ..	—	1	1	—	17	28	47
B.C.G.	—	—	—	—	—	—	—

NEWCASTLE AIRPORT

On July 1st, 1966, Castle Ward R.D.C. became responsible for the Public Health Control of Newcastle Airport.

The main duty is under the Public Health (Aircraft) Regulations 1966 relating to the prevention of the importation of infectious disease. Under the regulations it is the responsibility of this authority to make arrangements for the examination, isolation and hospitalisation of anyone who arrives in this country suffering from, or suspected to be suffering from, or having been exposed to a quarantinable disease. Regulations also exist for the detention and disinfection of aircraft.

Of the six quantinable diseases, yellow fever, plague, cholera ,relapsing fever, typhus and smallpox, it is the latter which gives most ca use for concern in this country. All passengers arriving from Africa, Asia, Australia and Central and South America must be in possession of a valid vaccination certificate and it is the duty of the Airport Health Authority to ensure this. Hence any planes from these continents must be met by a representative of the health department. Where persons are not in possession of a vaccination certificate, vaccination is offered and if this is refused the person is placed under surveillance, i.e., the Medical Officer of Health of the area to which the person is travelling is notified and he keeps in touch with the person for a period of 14 days. If the passenger comes from a locally infected area, i.e., an area where cases of smallpox have occurred within 28 days then control is more strict and in some instances all persons are placed under surveillance.

Another duty is the medical inspection of immigrants or at least of those immigrants holding a Ministry of Labour voucher. During the second half of 1966 we were not called upon to examine any immigrants.

Other medical duties at the airport are the casualty services and the plans for dealing with a major accident. These are the responsibility of the Airport authority but as it is convenient to have all medical activities in the same premises and as the previous Airport Health Authority advised on these matters this duty of liaison has continued. In fact 95% of the use of the health unit is for casualty work and during the second half of 1966 only one call in connection with public health control was received.

In spite of the minimal number of calls during 1966, a medical officer has to be available within a short period of time at the airport for both Public Health Control and the medical examination of immigrants. The arrangement made was for the Medical Officer to answer calls if available but if he was not available for one of a practice of three doctors to attend. For this purpose Drs. Nicholson, Latimer and Burnett were appointed deputy airport medical officers and they and the Medical Officer have been appointed by the Minister of Health as Medical Inspectors of Aliens and Medical Inspectors of Commonwealth Immigrants.

AIR POLLUTION

Air pollution and its effect upon health is a complex matter but over the last 15 years great advances have been made in the understanding of the subject. It has been thought worthwhile to set down some facts, figures and comments derived mainly from the work of others and I have borrowed from writings in science and technology as well as medicine. Three aspects of the situation will be dealt with. Firstly the patterns in the consumption of fuel and the pollutants produced. In this I am very much indebted to the writings of Dr. Albert Parker in various journals. Secondly some local measurements of smoke and sulphur dioxide for the past few years are given and for these I would like to thank Mr. Strachan, Mr. Corney and Mr. Mair. Lastly the death rates for bronchitis and lung cancer for various areas are looked at although many reservations have to be made in the study of these figures.

THE CONSUMPTION OF FUEL

Apart from grit produced by some industrial processes, air pollution is a result of the consumption of fuel. Considerable change has taken place in the use of fuel over the last few years. While the total fuel consumed has increased, there has been a big move away from coal which has been much more marked in London and the South of England.

MAIN TYPES OF FUEL USED

(All figures in millions of tons)

	1938	1956	1965
Coal	176	215	182
Oil (Coal equivalent)	12	36	98
Hydro electricity do. . .	1	1	2
Nuclear energy do. . .	—	—	6
Natural gas do. . .	—	—	1
	189	252	289

The figures given for fuels other than coal are coal equivalents. One ton of oil is equivalent to 1.7 tons of coal.

Estimates of the amount of pollutants produced by the various classes of fuel have been made and a table produced by Dr. Albert Parker is given below :

ESTIMATES OF AIR POLLUTION IN GREAT BRITAIN IN 1965

All figures in millions of tons

Fuel and class of consumer	Quantity of fuel	Pollutants discharged		
		Smoke	Grit* Dust	Sulphur Dioxide
COAL :				
Domestic	27.3	0.9	0.1	0.71
Electricity Works	69.3	small	0.3	2.12
Railways	2.8	0.06	0.1	0.08
Industrial	39.0	0.14	0.3	1.12
Coke ovens	25.7	small	small	0.09
Gas works	18.0	small	small	0.13
	182.1			
COKE :				
Domestic	6.3	Nil	small	0.14
Industrial etc.	6.9	nil	small	0.17
		1.1	0.8	4.55
OIL :				
Domestic	2.1	small	nil	0.01
Industrial etc.	36.6	small	nil	1.76
Road and rail vehicles	15.5	small	nil	0.07
Marine craft	1.1	small	nil	0.04
	53.3			1.88
Total for coal and oil		1.1	0.8*	6.43

*An additional 0.4 million tons of grit are produced by other industrial processes.

From this it will be seen that the domestic fire produces three quarters of the total smoke and half the total smoke and grit even although it only accounts for one tenth of the total fuel consumed.

The figures for smoke and SO2 produced in various years are also of interest.

SMOKE AND SULPHUR DIOXIDE IN MILLIONS OF TONS

	1938	1956	1965
Smoke — Coal	2.7	2.3	1.1
Oil	Small	Small	Small
SO2 — Coal and Coke	4.07	4.8	4.55
Oil	0.06	0.53	1.88
TOTAL	4.13	5.33	6.43

The big reduction in the amount of smoke between 1956 and 1965 has been achieved by a 75% reduction by industry and less than 20% by domestic consumers. Basically it represents a voluntary move away from coal but clean air zones and the law against black smoke have also played a part. Industry has, of course, a strong economic motive to use fuel as efficiently as possible. The domestic consumer has the same economic motive but capital costs are often a strong deterrent although grants are available in smoke control areas. Local shortages of certain types of fuel have been a major stumbling block.

The total amount of SO2 produced has increased by 50% since 1938. While the total figure for coal and oil are given, there is wide variation in the amount of SO2 produced by various kinds and qualities of each fuel. For instance more SO2 is produced per ton of coal burned at power stations than per ton burned on a domestic grate. This is because of the more complete combustion of the fuel and because lower quality coal is used at Power Stations. Measurements of SO2 in the atmosphere fortunately do not show this increase and in fact even although the total SO2 produced has increased by 20% in the last 10 years the average measurement of the gas has gone down also by 20%. This is because in the absence of smoke more of the SO2 diffuses into the upper atmosphere. Also an increasing proportion of the SO2 is produced by industry and power stations and the proper siting of these, e.g., Blyth Power Station, can lead to the dispersal of the gas where it will do little harm. Unfortunately, the siting of the Stella power stations is such that the SO2 and some of the grit produced falls in a highly populated area. Between them the two Stella power stations consume each year 1,500,000 tons of coal, i.e. more than in all the domestic fires on Tyneside. This means that some 40,000 tons of SO2 are liberated annually.

The amount of grit produced is some (250,000) tons annually but the grit arresting process is 98% efficient which means that some 5,000 tons are discharged into the atmosphere each year.

LOCAL MEASUREMENTS

Measurement of smoke and SO2 is taking place at over 1100 centres throughout the country and 20 of these are in Urban Tyneside. Readings are affected by a large number of variable factors the chief ones being weather conditions and the seasonal use of domestic fuels. At each centre local factors have to be considered, e.g. at Newburn the withdrawal of steam locomotives on the Hexham line has led to a fall in the smoke readings. At Westerhope the large number of new dwellings in the area has to be taken into consideration. At Shipley Street on the other hand, clearance has substantially reduced the number of dwellings in the area. Blakelaw became a smoke control area on 1st July, 1965.

AVERAGE YEARLY FIGURES FOR CERTAIN CENTRES

Smoke in micrograms per cubic metre :

Year	Newburn	Westerhope	Blakelaw	Shipley St.	Ponteland
1961	203	187	—	—	—
1962	165	168	182	*349	—
1963	133	136	176	350	—
1964	127	129	195	383	—
1965	134	152	145	376	—
1966	59	134	96	234	44

SO2 in Micrograms per cubic metre

Year	Newburn	Westerhope	Blakelaw	Shipley St.	Ponteland
1961	70	93	—	—	—
1962	75	82	124	247	—
1963	98	90	92	229	—
1964	91	95	78	221	—
1965	99	111	97	201	—
1966	122	125	77	174	39

Some further figures for 1966 appear in Mr. Strachan's report.

MONTHLY READINGS AT WESTERHOPE

	SMOKE			SO2		
	1964	1965	1966	1964	1965	1966
Jan. . .	111	221	279	199	76	222
Feb.	172	158	223	135	66	174
Mar.	195	208	107	148	160	98
Apr.	101	142	117	135	85	109
May	84	141	84	77	84	89
June . .	42	106	86	78	75	114
July	28	70	52	90	58	71
Aug.	42	82	100	39	84	71
Sept. . .	54	85	102	51	116	104
Oct. . .	149	211	138	66	241	140
Nov.	231	169	157	84	132	173
Dec.	263	225	164	81	154	129

ROAD VEHICLES

10.74 million tons of petrol and 3.84 million tons of diesel oil were consumed in 1965, i.e., about 8% of the total fuel consumed.

Pollutants arising from these fuels will not add appreciably to *general* atmospheric pollution but there are dangers of high concentrations on main roads and in garages. The pollutants most likely to cause concern are black smoke, hydrocarbons and carbon monoxide. Other toxic substances are lead, sulphur dioxide, sulphuric acid, aldehydes derived from fuel or fuel additives and oxides of nitrogen produced by the fixation of atmospheric nitrogen.

All these substances are being measured on busy roads, in garages, and also in industry where oil is used. So far concentrations have not reached levels considered to be dangerous although some concern has been felt about the amount of carbon monoxide on main roads.

The health of persons such as policemen and garage attendants who are most exposed to petrol and diesel fumes is being closely watched. So far there has been no evidence of any added health risk in these occupations.

In certain American cities particularly Los Angeles concentrations of pollutants have reached much higher levels than any in this country. As yet there has been no proof of any added health risk among the inhabitants of these cities.

The situation with regard to vehicle exhausts has obviously got to be kept under review. No recognisable public health hazard has yet appeared but it has of course to be remembered that the danger of cigarette smoking did not become apparent until large numbers of persons had been smoking for 30 to 40 years.

COST OF AIR POLLUTION

The Beaver Committee (1954) made estimates of the cost of air pollution in addition to the health risks. These estimates were tentative and have since been thought to have been too conservative. Costs come under three main headings.

	£m. per annum
1. Direct Costs	
Excess laundry	25
Excess painting and decorating	30
Damage to materials—buildings	20
—metals	25
—textiles	50
	150 m.
2. Loss of Efficienty Costs :	
Agriculture	10
Manufacturing	55
Transport	60
	125 m.
3. Incomplete Combustion of Fuel	25 m.
	£300,000,000

This cost is estimated at £10 per head in the black areas and £5 per head elsewhere.

AIR POLLUTION AND HEALTH

The diseases most clearly associated with air pollution are bronchitis and lung cancer and some national and local figures are given below :

DEATH RATES PER 100,000 POPULATION 1961—65

	Bronchitis—all forms	Cancer—lung, bronchus
England and Wales	65	53
Newcastle upon Tyne County Borough	86	77
Urban Districts of Northumberland	69	52
Rural Districts of Northumberland	49	40
Castle Ward Rural District	61	51
Hexham & Bellingham Rural Districts	34	42

In England and Wales during 1961 — 65,158,297 persons, 112,943 males and 45,354 females died from bronchitis and 122,742 persons, 104,202 males and 18,540 females died from cancer of the lung. For the latter disease the number of deaths has been increasing by about 1,000 per annum.

The figures for Castle Ward are given but are of little value. Over 50% of the deaths in the district are among long stay patients in hospital or old persons homes. In addition since the population of the district has doubled in the last 15 years the percentage of persons having lived all their lives in the district is low. Further, different parts of the area, industrial, residential or agricultural, are likely to have different levels of the two diseases.

In comparing the figures for different districts various factors have to be taken into consideration. For instance, if an adjustment is made for the age of the population the difference between the urban and rural areas of Northumberland becomes more marked.

The death rates from bronchitis give a very limited picture of the disease. For every 1,000 deaths where bronchitis is given as the primary cause there are almost as many again where it is given as an associated cause. The number of deaths is only a tiny percentage of the total prevalence. Various surveys have shown that bronchitis is the commonest cause of absence from work among men and also the commonest reason for men consulting their general practitioner.

While international comparisons have to be made with reserve it would appear that Britain has ten times as many deaths from bronchitis as the United States, France or the Scandinavian countries. Abroad bronchitis is sometimes known as the English disease. It should however be regarded as a group of diseases rather than a single entity. The causes can be simply stated as constitution of the individual, infection and the inhalation of foreign matter. Infection of many types leads to bronchitis and chronic bronchitis more often results from repeated minor infections rather than one or two severe infections. The inhalation of foreign matter can be divided into

personal air pollution — smoking
public air pollution — domestic exposure
occupational exposure

Population studies of bronchitis show it to be associated with " the less well paid, the less skilled and those living in less pleasant surroundings." The death rate in heavy cigarette smokers is six times that of non smokers. The contrast between the figures for Newcastle upon Tyne and Hexham and Bellingham rural districts indicates the increased hazard of an urban environment.

The ultimate cause of cancer of the lung is not known but the outstanding association is with cigarette smoking, the death rate of heavy cigarette smokers being thirty times that of non-smokers. However, the disease is almost twice as common in cities as in rural areas and there is a less marked association with the various other factors leading to bronchitis.

All this has been stated in some detail as it is considered to be the outstanding problem of environmental health in Britain in the 20th century. The improvements in water supply, food and sanitation in the last century have led to a great reduction in death and illness from bowel diseases. The rewards in improvement in health by the reduction of air pollution are likely to be much greater.

Annual Report of the Chief Public Health Inspector and Cleansing Superintendent
1966

Mr. Chairman, Ladies and Gentlemen,

I have pleasure in presenting my report for the year ended 31st December, 1966.

The usual routine inspections of food stores, food preparing establishments, offices, and attention to complaints of defective housing, and nuisances, have been adequately maintained. The detailed particulars of this work are set out in the report under their respective headings.

The introduction of the Meat Inspection (Amended) Regulations 1966 which came into operation on 30th September, 1966, enabled local authorities (except those with their own by-laws) for the first time to restrict the hours during which an animal may be slaughtered in any private slaughter-house. Negotiations with the owner-occupier of the largest slaughter-house in the district resulted in the cessation of Sunday slaughtering.

As in previous years, there has been a steady rate of house building. Of the 399 new houses and flats, 142 were built by private enterprise ; 245 by Newcastle Corporation (Newbiggin Hall overspill) ; and 12 (4 houses and 8 flats) by Castle Ward R.D.C. The improvement of substandard houses by grant aid shows an increase when compared with the previous year.

Refuse collection and disposal have proportionately increased with housing development, as has also the time devoted to the supervision of this service.

INSPECTION AND SUPERVISION OF FOOD

(a) MILK SUPPLY

The following milk distributors are registered under the Milk and Dairies (General) Regulations, 1959 :—

Registered Distributors :

Mr. J. H. Brown, Ivy House, Kenton Bank Foot.
Cramlington & District Co-operative Society Ltd., Brunswick Village.
Mr. H. J. Farquhar, 10 Queensway, Brunton Park.
Mr. J. A. Herron, Woodside, Darras Hall.
Mr. J. H. Hudspeth, North Brunton Farm, North Gosforth.
Newcastle Co-operative Society, Cowgate, Newcastle upon Tyne.
Messrs. W. & J. Pearson, 2 Grey Street, Brunswick Village.
Mr. H. Thompson, Hawthorn Cottage, Brunton Lane, Newcastle upon Tyne.
Throckley & District Co-operative Society Ltd., Hexham Road, Throckley.
Mrs. M. U. White, North Mason Farm, Dinnington.

Samples of milk taken by the County Health Inspector during the year, under the Milk (Special Designation) Regulations 1960, and their examination results are as follows :—

Tuberculin Tested	17
Tuberculin Tested Pasteurised	—
Pasteurised	26
	43

Of these, one sample of 'Tuberculin Tested' and three samples of 'Pasteurised' milk failed to satisfy the methylene blue test ; the remainder satisfied the prescribed tests.

(b) FOOD PREMISES

There are 167 food premises in the district as follows :—

Bakers and Confectioners	5
Butchers	11
Canteens (Industrial)	5
Chemists	5
Clubs	8
Food Manufacturers	3
Fried and Wet Fish Shops	1
Groceries and Provisions	21
General Dealers	28
Greengrocers	4
Hospital and Institution Kitchens	10
Public Houses and Off-Licences	35
Restaurants, Cafes, Snack-bars	11
School Kitchens and Dining Rooms	18
Slaughterhouses	2
	167

Of these premises 52 are registered under Section 16 of the Food and Drugs Act, 1955, for the following purposes :—

Sale of Ice-Cream	41
Manufacture of Sausage and Preserved Meats	11
	52

A number of ice-cream kiosks and travelling shops operate in the district which are subject to supervision under the appropriate regulations.

(c) ICE-CREAM (HEAT TREATMENT) REGULATIONS, 1959

Eleven samples of ice-cream were taken for examination by the Public Health Laboratory.

Results were as follows :—

Provisional Grade 1	9
,, ,, 4	2

(d) FOOD AND DRUGS ACT 1955 — SAMPLING OF FOOD

The Northumberland County Council as the Food and Drugs Authority are responsible for sampling under this heading and 143 samples were taken in the Castle Ward area during the year.

The following information has kindly been supplied by Mr. C. L. Arlidge, Chief Inspector, County Weights and Measures Department :—

Particulars of samples taken in Castle Ward
Rural District for the year ended 31st December, 1966.

Apple Flakes
Aspirin Tablets B.P.
Beef Patties
Beetroot (Cooked)
Biscuits
Brandy Snaps
Butter
Cherries (Canned)
Cherry Syrup
Chip Straws
Chocolate
Chutney
Coffee (White)
Cream
Egg Noodles
Fruit Climpies
Fruit Dessert
Fruit Drinks
Ginger Beer
Glucose
Glycerine B.P.
Gravy Browning
Health Drink
Honey
Instant Potato
Jam
Jelly Crystals
Juices (Vegetable)
Juices (Fruit)
Ketchup
Lemon Cheese
Lemonade Crystals
Maize
Malt Vinegar
Marzipan
Meat Balls (Canned)
Milk (Condensed)
Milk (Channel Islands)
Milk (Other)
Milk Block
Milk Granules
Milk Shake Syrup
Milk Topping
Mini-Chips
Mixed Peel
Mustard
Non-Brewed Condiment
Omelette Mix
Onions (Cocktail)
Pancake Mix
Peas (Processed)
Pie Filling
Pork (Canned)
Potatoes (Canned)
Raisin Bran
Rhubarb (Canned)
Rose Hip Syrup
Sage and Onion Stuffing
Salmon (Fresh)
Salt
Sauce
Sausages (Beef)
Sausages (Pork)
Shortbread
Soup
Strawberries (Canned)
Tea
Toffee
Tomatoes (Canned)
Wheat Flakes

Number Genuine .. .. 139 Number Unsatisfactory .. 4

PARTICULARS OF UNSATISFACTORY SAMPLES

The four samples which proved unsatisfactory were :—

Sample	*Analysis*	*Action Taken*
Low Fat Milk Granules	Not labelled strictly in accordance with Regulation 5.	All stocks withdrawn and labels modified before redistribution.
Tablets of Aspirin B.P.	Contained an excess of Acetylsalicylic Acid (334 mgm per tablet)—111% of B.P. prescribed amount (permissible limits are 95% to 105%).	Variation traced to faulty machinery. All stocks withdrawn, production halted and machinery overhauled

White Coffee—from vending machine	A sample of coffee made with skimmed milk containing less than 0.1% fat (by weight) and only 2.6% non-fatty milk solids (by weight). The term "*White Coffee*" traditionally implies that the milk is *whole* milk and not, as in this instance, *skimmed* milk.	Owners of vending machine affixed a suitable informative notice to machine to inform prospective purchasers/consumers.
Currant Shortbread	Contained only 13.6% butter in total fat content. The fat in biscuit confectionery which is described as "*Shortbread*" should consist wholly of butter fat.	Enquiries proceeding.

(e) COMPLAINTS OF UNSOUND FOOD

FOOD AND DRUGS ACT 1955 — SECTION 2

In three instances, complaints of unsound food were reported during the year. Unsoundness in these cases was due to :

Dirt in a bottle of limeade ; a fly embedded in a loaf of bread ; and mould growth in a walnut gateau cake. The Council resolved in the first two instances to take no formal action but warning letters were sent to the manufacturers.

Proceedings were taken in the case of the walnut gateau cake, both partners of the firm pleaded guilty, resulted in a fine of £5 0s. 0d. each (Total £10 0s. 0d.) being imposed by the Magistrates, plus costs of £6 6s. 0d.

MILK AND DAIRIES (GENERAL) REGULATIONS 1959 — SECTION 27

Three offences were brought to the attention of the department under the above regulations concerning six dirty milk bottles. In two instances the seals of the bottles had been broken and a considerable quantity of milk consumed. Under those circumstances formal action was not considered advisable. In the third instance concerning two dirty milk bottles, after due consideration of the circumstances of the case and the report by the Public Analyst, it was decided that no formal action be taken.

MILK AND DAIRIES (GENERAL) REGULATIONS 1959 AND FOOD AND DRUGS ACT 1955 — Section 31. Circular 17/66

Brucellosis

The above mentioned circular 17/66 dated 24th October, 1966, indicated that to implement the requirements it seemed necessary for the district authorities within the County of Northumberland to assist the County Health Department in their milk sampling routine.

At a meeting of Chief Public Health Inspectors of district Councils convened by Mr. D. Lister, County Health Inspector, it was resolved that those authorities where staffing allowed would undertake sampling of dairy herds every quarter.

The results of sampling within this district will be included in next year's Annual Report.

(f) MEAT AND OTHER FOODS

The District has two licensed slaughterhouses, equipped so as to conform with the Slaughterhouses Act, 1958 and regulations made thereunder :—

E. Lumley & Son, Brewery Yard, Stamfordham.

R. Manners & Sons Ltd., Meadowfield, Ponteland.

The premises at Ponteland also include a factory for the processing of meat and meat products.

One hundred per cent meat inspection is carried out at both slaughterhouses in accordance with the 1963 Meat Inspection Regulations and, as mentioned elsewhere in the report, Sunday slaughtering, except under very exceptional circumstances, has been discontinued.

The Northumbrian Chicken Company Limited, also with premises at Meadowfield, continues to function satisfactorily.

This packing station, which handles some 26,000 birds per week, serves Northumberland, Durham and North Yorkshire and has 40 growers under contract, five of whom are in this district. All broilers passing through the station must have been vaccinated against fowl pest and breeding stock are vaccinated against epidemic tremor so the maternal resistance may be passed on to the chick.

SLAUGHTER ON ANIMALS ACT 1955 (Slaughtermen's Licences)

Under Section 3 of this Act, sixteen licences have been issued.

DETAILS OF ANIMALS SLAUGHTERED AND INSPECTED

	Cattle excl. Cows	Cows	Calves	Sheep and Lambs	Pigs	Total
Normal Kill	5121	788	156	18769	6644	31478
Casualties	21	16	6	116	19	178
Number examined	5142	804	162	18885	6663	31656
CARCASES CONDEMNED WHOLLY OR IN PART : **A. All Diseases except Tuberculosis and Cysticerci—** Whole carcases condemned ..	14	11	15	161	36	237
Carcases of which some part or organ was condemned	2423	373	—	2419	1750	6965
Percentage of number inspected affected with disease other than Tuberculosis and Cysticerci ..	47.4%	38.4%	7.4%	1.4%	26.8%	22.7%
B. Tuberculosis only : Whole carcases condemned ..	—	—	—	—	—	—
Carcases of which some part or organ was condemned ..	—	—	—	—	16	16
Percentage of number inspected affected with Tuberculosis	—	—	—	—	0.24%	0.05%
C. Cysticercosis : Whole Carcases condemned ..	1	—	—	—	—	1
Carcases of which some part or organ was condemned ..	—	—	—	—	—	—
Percentage of the number inspected affected with cysticerci	0.019%	—	—	—	—	0.003%

DETAILS OF MEAT AND OTHER ORGANS CONDEMNED, SURRENDERED AND DISPOSED OF

For Tuberculosis

Pigs

Heads ..	.. 16

For Other Defined Diseases

Bovine

Fat ..	13 stones	Abscesses 6, Fat Necrosis 2, Pentastomes 2, Peritonitis 3.
Heads and Tongues ..	27	Abscesses 7, Actinobacillosis 9, Actinomycosis 8, Gangrene 1, Lymphadenitis 2.
Hearts	.. 35	Pericarditis 35.
Intestines	.. 7	Johnes Disease 1, Peritonitis 6.
Kidneys	.. 39	Abscesses 2, Hydatid Cysts 2, Hydronephrosis 6, Infarcts 4, Nephritis 17, Pyelonephritis 2, Retention Cysts 6.
Livers (whole)	962	Abscesses 143, Cirrhosis 740, Hydatid Cysts 4, Melanosis 2, Peritonitis 24, Telangiectasis 49.
Livers (part)	..1413	Cirrhosis 1413.
Lungs ..	.. 455	Abscesses 13, Emphysema 9, Fluke Abscesses 151, Hydatid Cysts 5, Ill-bled 2, Melanosis 1, Pleurisy 251, Pneumonia 23.
Spleen ..	.. 4	Peritonitis 4.
Tripes ..	.. 1	Enteritis 1.
Beef ..	.. 86 stones	Arthritis 11 st., Bone Taint 8 st., Bruising ¾ st., Melanosis ½ st., Peritonitis 1½ st., Pleurisy 2 st., Traumatism 62 st.
Carcases	.. 40 (622 stones)	Acute Enteritis 1, Emaciation and Oedema 6, Generalised Oedema 2, Immaturity 9, Jaundice 1, Johnes Disease 3, Peritonitis 1, Pyrexia 2, Septicaemia 5, Septic Arthritis 2, Septic Peritonitis 2, Septic Pneumonia 3, Traumatism 1, Umbilical Pyaemia 1, Uraemia 1.

Sheep

Hearts..	.. 15	Parasites 3, Pericarditis 12.
Intestines	.. 15	Peritonitis 15.
Kidneys	.. 2	Infarcts 2.
Livers ..	..1268	Abscesses 3, Cirrhosis 208, Cysticercus Tennuicollis 108, Fatty Degeneration 5, Fatty Infiltration 4, Fluke Infestation 430, Other Parasites 492, Peritonitis 17, Toxaemia 1.
Lungs ..	..1184	Muellerius Capillaris 424, Other Parasites 244, Pleurisy 59, Pneumonia 457.

Mutton	.. 28¼ stones	Abscesses 3 st., Arthritis 11¼ st., Atrophy 1 st., Peritonitis ¼ st., Pleurisy 4¾ st., Pneumonia ½ st., Traumatism 7½ st.
Carcases	.. 161 (477¾ stones)	3, Emaciation and Oedema 99, Enteritis 1, Gangrenous Mastitis 1, Gangrenous Pneumonia 1, Generalised Oedema 9, Ill-Bled 1, Immaturity 3, Moribund 3, Peritonitis 2, Pyaemia 1, Pyrexia 12, Septicaemia 1, Septic Mastitis 4, Septic Metritis 2, Septic Peritonitis 3, Septic Pneumonia 7, Traumatism 6.
Pigs		
Heads ..	.. 8	Abscesses 5, Corynebacterium Equi 3.
Hearts..	.. 159	Pericarditis 159.
Kidneys	.. 21	Hydronephrosis 1, Nephritis 5, Retention Cysts 15.
Livers ..	.. 378	Ascaris Lumbricoides 310, Other Parasites 5, Peritonitis 63.
Lungs ..	..1309	Ill-bled 16, Pleurisy 109, Pneumonia 1184.
Stomachs and Intestines	.. 12	Enteritis 4, Peritonitis 8.
Pork ..	.. 39¾ stones	Abscesses 4½ st., Arthritis 14 st., Bruising ½ st., Gangrene 3½ st., Peritonitis ½ st., Traumatism 16¾ st.
Carcases	.. 36 (244½ stones)	Acute Pleurisy 1, Arthritis and Oedema 3, Emaciation and Oedema, 2, Generalised Oedema 10, Jaundice 1, Malformation and Oedema 1, Moribund 2, Pneumonia 1, Pyaemia 5, Septicaemia 1, Septic Arthritis 1, Septic Peritonitis 1, Septic Pleurisy 1, Septic Pneumonia 2, Swine Erysipelas 3, Uraemia 1.

Note: the Carcases entry above reads "Acute Mastitis 1, Acute Nephritis 1, Arthritis 3, Emaciation and Oedema 99, …" in full.

TOTAL NUMBER OF FOOD ANIMALS SLAUGHTERED AND INSPECTED IN PAST EIGHT YEARS

	1959	1960	1961	1962	1963	1964	1965	1966
Cattle(ex. cows	1,065	1,129	1,385	1,183	1,091	5,238	5,807	5,142
Cows	358	317	318	332	269	956	1,090	804
Calves	251	256	358	351	417	277	168	162
Sheep & Lambs	5,762	5,809	6,828	6,048	6,606	19,083	14,772	18,885
Pigs	1,354	1,056	411	487	388	4,210	6,256	6,663
	8,790	8,567	9,300	8,401	8,771	29,764	28,093	31,656

PRE-PACKED AND TINNED FOOD

The amount of pre-packed and tinned food condemned for decomposition was as follows :—

Canned meats	45 lb.
Fruit and Vegetables ..	26 lb.
Cereals	6 lb.

PUBLIC CLEANSING

The area of the district is approximately one hundred and thirty square miles and comprises thirteen parishes. A weekly collection is maintained throughout the entire district. Included in this is the service to large hospitals, teachers' training college and other similar establishments.

The continued housing development in the district, and more especially on the Newbiggin Hall Estate, has increased the work of collection and consequent disposal of household refuse. Seventy-five per cent of the housing development on Newbiggin Hall Estate, which is an overspill from Newcastle upon Tyne, are houses which are heated other than by solid fuel.

In the absence of open fires, all household rubbish finds its way into the bin. The result is that there is more refuse to collect than from houses with open fires or domestic boilers, and is consequently bulky and has a high paper content.

Approximately 12,000 bins are collected throughout the area every week.

In February a Joint Meeting was called between representatives of the North Regional Planning Committee and representatives of Cleansing Committees in the Tyneside and Wearside Area to consider a report on Regional Refuse Disposal. There is, and has been, considerable difficulty in some districts in connection with adequate space for the depositing of refuse. An Urban District adjacent to Castle Ward for instance, has had no tipping area for over two years and they have been obliged to seek assistance from an adjoining authority with whom they have been able to make arrangements for the disposal of all refuse from their area.

Castle Ward Rural District has tipping space for some years to come, but obviously the time will arise when even in the Rural District the position will be difficult.

The Council resolved to join the Working Party. Subsequently the Joint Working Party engaged the Local Government Operational Research Unit to investigate and report on the problem of refuse disposal on Tyneside and Wearside in those districts which were participants of the enquiry.

The Castle Ward Authority, at the request of the Research Unit, provided information as set out below :—

There are seven cleansing sector areas which cover the entire district. Frequency of collection is weekly.

	Sector 1	Sector 2	Sector 3	Sector 4	Sector 5	Sector 6	Sector 7
Number of :							
Bins . .	2322	3411	791	480	1044	2645	858
Premises	2419	3411	634	360	611	2248	800
Vehicle Type . .	S & D Fore & Aft Tipper 18/25 c.yd.	S & D Paka-matic 50 c.yd.	Karrier Bantam 7 c.yd.	Karrier Bantam 10 c.yd.	Karrier Bantam 7 c.yd.	S & D Fore & Aft Tipper 18/25 c.yd.	Karrier Bamtan

REFUSE ANALYSIS

Selected loads were taken from the following :—

Sector 1 — 1 load ; Sector 2 — 2 loads (one from houses with solid fuel fires and one from houses with gas or electric heating) ; Sector 4 — 1 load ; Sector 5 — 1 load ; Sector 6 — 1 load.

The consistency of the refuse in Sectors 3 and 4 being considered the same, one load only was taken, and one from each of sectors 1, 5 and 6.

The results of the analysis are set out below :—

Details	Sector 1	Sector 2 (a)	Sector 2 (b)	Sector 4	Sector 5	Sector 6
Volume of loads	10 c.yds.	10 c.yds.	10 c.yds.	10 c.yds.	10 c.yds.	10 c.yds.
Number of bins in load	134	135	85	130	120	133
Weight of load	23 cwts.	29.25 c.	15.25 c.	22.5 c.	18.5 c.	23.5 c.
Weight of refuse through ½" screen	5 cwts.	12.5 c.	1.5 c.	11.1 c.	2.35 c.	5.25 c.
2" ,,	6.75 c.	13.55 c.	3.25 c.	13.13 c.	10.5 c.	6.75 c.
,, glass	2.5 c.	1.75 c.	1.2 c.	1.6 c.	2.0 c.	2.0 c.
,, tins	1.75 c.	2.25 c.	1.5 c.	1.5 c.	2.28 c.	1.45 c.
,, mixed paper (baled)	1.1 c.	1.1 c.	.80 c.	2.0 c.	1.2 c.	1.25 c.
,, rags	.2 c.	.25 c.	.25 c.	.07 c.	.12 c.	
,, other refuse	10.7 c.	10.25 c.	8.25 c.	4.1 c.	2.4 c.	10.9 c.
,, ,, metal		.1 c.		.1 c.		1.15 c.

(2a — houses with solid fuel fires ; 2b — houses without solid fuel fires).

It will no doubt be agreed that the quantity of glass and tins is quite remarkable. It also shows that a considerable quantity of salvageable paper is lost with the refuse.

A further interesting point is the number of bins collected over and above the number of properties throughout the district. In all some 1,960 extra bins are collected each week. Many of these bins are of course from trade premises where an additional charge is made, but the majority come from private dwellings from which two, or more bins are collected.

SEPTIC TANK EMPTYING SERVICE

This is a service free of charge to all houses which are unable for various reasons to use public sewers. The septic tanks are desludged every six months. The average cost per service for carrying out this work throughout the year amounts to £1 8s. 0d. per tank.

The occasion does arise on farm premises where there is a septic tank which deals exclusively with liquid waste from byres, milking establishments etc. In these instances the farmer usually requests the desludging of the septic tank at the same time as the domestic tank is being serviced. In such cases a charge for labour and running costs is made.

VEHICLES

The following vehicles are employed on the service :—

CTY 579	Thorneycroft	1948	12 cu. yds.	Side loader. Petrol engine
FJR 217	Karrier Bantam	1953	7 cu. yds.	do. do.
JNL 952	Shelvoke & Drewry	1955	18/25 yds.	Rear loader for and aft tipper. Diesel engine
PNL 140	Karrier Bantam	1959	7 cu. yds.	Side loader. Diesel engine.
RTY 550	Karrier Gamecock	1960	18/25 yds.	Rear loader fore and aft tipper. Diesel engine.
RJR 394	Thames Trader	1960	1,000 galls.	Cesspool emptier. Diesel engine.
WNL 796	Karrier Bantam	1962	10 cu. yds.	Side loader. Diesel engine.
YTY 269	Shelvoke & Drewry	1963	25 cu. yds.	Rear loader fore and aft tipper. Diesel engine.
YNL 71	Weatherill	1963		Mechanical Shovel. Diesel engine.
CNL 257 B	Karrier Bantam	1964	10 cu. yds.	Side loader. Diesel engine.
ETY 590 C	Karrier Bantam	1965	10 cu. yds.	Side loader. Diesel engine.
JNL 279 D	Shelvoke & Drewry	1966	50 cu. yds.	Rear loader Pakamatic Diesel engine.

REFUSE DISPOSAL

Disposal points are as follows :—

1. Belsay Quarry.
2. Stobhill, Cheeseburn Grange.
3. Heddon-on-the-Wall.
4. Disused Sewage Works, Woolsington.
5. Mill Hill, Dinnington.
6. Old Gravel Pit, Kirkley West Thorn.
7. Stannington.

CLEANSING COSTS FOR THE YEAR ENDED 31st MARCH, 1967

Volume of refuse removed		80,550 cu. yds.
Estimated weight of refuse removed		10,470 tons
Approximate average weight per house per annum		20.84 cwts.
Average volume per house per annum		8.02 cu. yds.
Average weight per 1,000 population per day (365 days)		17.18 cwts.
Total cost of collection and disposal (Refuse and salvage) and operation of septic tank emptying service		£46,806
Less income from salvage, trade refuse etc.		4.235
Net Cleansing Cost		£42,571
Refuse collection and disposal cost per house per annum	£4	4s. 8d.
Refuse collection and disposal cost per head of population	£1	5s. 5d.
Cost on Rates in the £		8.78d.

SALVAGE

The total amount of wastepaper salvaged during the year was 349 tons 1 cwt. 1 qr.

Details of salvage disposed of :—

	Tons	Cwts.	Qts.	£	s.	d.
Wastepaper	349	1	1	2,989	10	1
Scrap Metal and Rags ..	4	14	3	45	16	0
	353	16	0	£3,169	15	0

This represents an increase of 14 tons 19 cwts. 2 qts. and £274 18s. 1d. respectively, on the previous year.

WATER SUPPLY

The Newcastle & Gateshead Water Company is the official water undertaker to the Council. Their water mains are so situated to enable any part of the 130 square miles, which comprise the district, to be supplied with an adequate and wholesome water service.

It will be appreciated, however, that there are a number of instances where connection to the Company's water mains would be an expensive project. There are still therefore a number of properties which continue to rely on their own supply.

The houses in the villages of Capheaton, Wallridge, and Belsay continue to receive their water supply from privately owned water mains. The water is obtained from two springs and a borehole. In the course of time these privately owned water mains will become corroded and the stage will be reached when consideration will have to be given to (a) their renewal, or (b) connection to the Newcastle & Gateshead Water Company's mains. In all probablity the latter will be the least expensive.

During the year a number of samples for bacteriological examination were obtained, the results of which are set out below.

Where the water is found to fall into the suspicious or unsatisfactory category, appropriate action is taken, and in such cases the consumers are advised to boil all drinking water prior to the works necessary to restore the supply to a wholesome condition.

No. of Samples	Probable numbers per 100 ml.	
	Coliform bacilli	Bact. coli (type I)
15	Nil	Nil
3	1	Nil
8	1	1
1	2	1
2	3	Nil
2	3	3
1	5	Nil
2	5	5
1	13	Nil
1	17	Nil
1	20	Nil
1	35	Nil
3	50	Nil
1	160	Nil
3	180+	Nil

I am indebted to Mr. M. J. Lowther, B.Sc., A.M.I.C.E., M.I.W.E., Engineer, Newcastle & Gateshead Water Company for the following information :—

" A total of 1,231 works control samples from the Whittle Dene and Henderson Filters were examined in the Company's laboratory during the year, and of these, two were " Unsatisfactory ", one " Suspicious ", five " Satisfactory " and the remainder " Excellent."

In addition to the foregoing, 215 samples of water from the Warkworth Filter Plant were examined, 318 from special fixed sampling points and 77 from random points in the area, all of which were classified "excellent."

The results of samples taken from various points within the Castle Ward Area were as follows :—

Source of Supply	*No. of Samples*	*Classification*
Moot Law Reservoir	5	Excellent
Harlow Hill Reservoir	10	do.
Fenham Reservoir	15	do.
Whalton Reservoir	5	do.
Coquet Water Board (Stannington)	5	do.

The following new water pipes were laid in Castle Ward Rural District during the year :—

Brunswick Parish	22	lin. yds. of	3"	dia. pipes
	121	,, ,,	4"	,, ,,
Ponteland Parish	179	,, ,,	3"	,, ,,
	1,075	,, ,,	4"	,, ,,
Woolsington Parish	502	,, ,,	3"	,, ,,
	1,341	,, ,,	4"	,, ,,
	1,248	,, ,,	6"	,, ,,

The following premises were connected during the year :—

OPEN SUPPLY

Address	*Nature of Supply*	*No. of Branches*
Mr. T. Robson, Woodside, Stannington	House	1
Mr. J. Chrisp, Adj. "Aswood", Station Road, Stannington	,,	1
Mr. W. Tasker Brown, Bank House, Belsay	,,	1
Northumberland County Council, North Moor, Station Road, Stannington	,,	1
Messrs. M. Grady & Son, 34 Campus Martius, Heddon-on-the-Wall	,,	1
Messrs. Smiths, Gore & Co., South Houghton Farm, Heddon-on-the-Wall	,,	1
Mr. J. Twizell, Ivy Cottages, Dalton	,,	1
Mr. F. C. Whaley, Field O.S. 45, Bolam Low House, Belsay	Trough	1
Mr. J. Mills, adj. School, Ingoe Village	House	1
Mr. M. Scott, Vicarage Cottage, Kirkheaton	,,	1
Castle Ward R.D.C., Blocks 1/4, Stannington	,,	6
Mr. J. V. Charlton, Sites 1/2 Bridge End, Stamfordham	,,	2
Castle Ward R.D.C., Block 2, Beach Lea, Stannington	,,	5
Blagdon Estate, 1/3 School Cottages, Stannington	,,	2

METER SUPPLY

Address	*Nature of Supply*	*No. of Branches*
Judge L. Wilkes, Kearsley Farm, Ingoe	Farm	1
Mr. H. Norman, "Rosemount", Eachwick, Dalton	,,	1
Mr. R. Hopper, Kirkley March Farm, Kirkley	,,	1
Mr. T. E. Howey, West Farm, Kirkheaton	,,	1

PREVENTION OF DAMAGE BY PESTS ACT 1949

Under this Act a Local Authority is responsible for ensuring that their district is kept free from rat a mice infestations and the Council employed a full-time rodent operator for this purpose. Infestations in connection with dwellinghouses are dealt with free of charge, a policy which has materially assisted in keeping down rodent population.

New building works continue to be the commonest sites of infestation and a considerable amount of work has been carried out at Newbiggin Hall Estate, generally in houses prior to occupation. Regular treatment of Council sewers is carried out and they are usually found to be free from infestation.

Area Liaison Committee meetings are held regularly under the auspices of the Ministry of Agriculture, Fisheries and Food when an opportunity is given to discuss problems with officers of neighbouring authorities.

Charges are made for the treatment of business premises and £105 3s. 9d. was received in this connection during the year.

	Type of Property	
	Non-Agricultural	Agricultural
Number of properties in the district ..	10,047	461
Total number of properties (including nearby premises) inspected following notification..	210	16
Number infested by (i) Rats	181	6
(ii) Mice	29	—
Total number of properties inspected for rats and/or mice for reasons other than notification	364	16
Number infested by (i) Rats	161	6
(ii) Mice	24	—

HOUSING

It is interesting to note that even in this modern age of flats, multi storey buildings etc., there still exists a demand for the country cottage — usually one that is going cheap and requires modernising. It has been the Council's policy over the last two decades to apply the requirements of the Housing Acts to all substandard dwellings.

This action has resulted in the making of demolition orders, closing orders, the acceptance of undertakings, the approval of applications for both discretionary and standard grants.

It is due to this policy that the housing standard throughout the district is good.

During the year, two houses were demolished and the sites cleared. Three Closing Orders, and two Demolition Orders were made and two undertakings were accepted.

Property owners are encouraged to apply for either discretionary or standard grants. In this connection over 500 houses have been provided with all modern facilities and restored to satisfactory dwellings.

Under the Housing Act 1964, which gives a local authority power for the compulsory improvement of dwellings, no formal action has been found necessary. The Policy of encouragement by personal contact has to date resulted in a slow but steady progress.

IMPROVEMENT GRANTS

HOUSING ACT, 1949. HOUSING REPAIRS AND RENT ACT, 1954. RENT ACT, 1957. HOUSING (FINANCIAL PROVISIONS) ACT, 1958. (SECTIONS 30—33). HOUSE PURCHASE AND HOUSING ACT, 1959.

During the year twenty-seven dwellings were improved with grant assistance. These works included in each case the installation of a bathroom, hot and cold water supply, inside W.C. and drainage system. Where it was necessary, natural lighting was also improved.

The average cost per house of carrying out improvement works as distinct from items of repair amounted to £395.

The total number of houses improved under this scheme is 460.

	Discretionary Grants	*Standard Grants*
(a) Applications submitted to local authority during year..	20	5
(b) Applications rejected	—	—
(c) Applications withdrawn	—	—
(d) Applications approved	20	5
(e) Total number of properties improved in the area since inception of scheme..	460	43

STANDARD GRANTS

Under the Standard Grant scheme, the maximum grant available for the installation of five amenities, namely, hot water system, W.C., bath, wash-hand basin, and food store is £155.

In certain defined circumstances where additional works are necessary to provide a bathroom by building a new extension, installing a septic tank where main drainage is not available, or bringing a piped water supply into a dwelling for the first time, the grant may be increased to 50% of the cost up to a maximum of £350.

During the year 5 applications were approved, bringing the total to 51.

Ten Standard Grants were completed during the same period.

HOUSING CONSOLIDATION REGULATIONS 1925/32

1.	No. of houses unfit for human habitation	2
2.	No. of houses where defects were remedied by informal action	117
3.	No. of representations made to the Council with a view to :—	
	(a) service notices requiring the execution of the work..	—
	(b) making demolition or closing orders	5
4.	No. of notices served requiring the execution of works ..	117
5.	No. of houses rendered fit after service of formal notices ..	—
6.	No. of demolition or closing orders made	5
7.	No. of houses in respect of which an undertaking was accepted under Section 16 of the Housing Act, 1957 ..	2
8.	No. of houses demolished	2

ATMOSPHERIC POLLUTION

Reference was made in last years report to the installation in the Council offices of a seven-day volumetric gauge. The purpose of this instrument is to filter a measured quantity of air each day. The air is passed through a solution of hydrogen peroxide. From these readings it is possible to measure accurately the two serious air pollutants, viz., smoke and sulphur dioxide.

The Health and Social Services Department of Newcastle Corporation and the Health Department of Newburn U.D.C. kindly supplied the results of their analyses for comparison (see below).

Monthly results are forwarded to the Ministry of Technology for inclusion in their National Survey of Air Pollution.

SMOKE AND S.O.2 AVERAGES

(Microgrammes/cubic metre)

PONTELAND 1.

	Smoke			S.O.2		
Date	Max.	Min.	Averages	Max.	Min.	Averages
1966						
January	310	30	121.0	240	33	79.9
February	342	6	91.3	182	22	72.1
March	130	6	29.9	73	6	24.1
April	99	6	26.5	84	6	25.7
May	80	4	31.6	90	23	47.5
June	31	4	17.3	76	45	61.5
July	48	3	16.9	46	17	29.9
August	51	3	20.4	53	6	28.5
September	91	6	33.8	43	23	33.5
October	151	9	52.3	36	12	23.5
November	118	8	44.5	49	6	24.3
December	173	5	41.5	31	6	17.0

COMPARATIVE TABLE — 1966
MONTHLY AVERAGE

	Smoke											
	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Ponteland . .	121	91	30	27	32	17	17	20	34	52	45	42
Westerhope . .	279	223	107	117	84	86	52	100	102	138	157	164
Blakelaw	252	237	66	62	62	66	31	35	93	86	71	91
New bridge St. . .	266	213	95	109	79	74	44	70	135	124	126	132

	S.O. 2											
	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Ponteland . .	80	72	24	26	48	62	30	29	34	24	24	17
Westerhope . .	222	174	98	109	89	114	71	71	104	140	173	129
Blakelaw	248	172	60	112	60	39	22	30	31	43	54	54
New Bridge St. . .	281	N	180	142	149	104	71	90	120	165	287	233

OFFICES, SHOPS AND RAILWAY PREMISES ACT 1963

The total number of registered premises at the end of the year was 114. Of this total, 3 premises were registered during the year. The number of registered premises receiving a general inspection during the course of the year was 108.

Number and Type of Premises Registered :

CLASS OF PREMISES	Number of premises registered during year	Total number of registered premises at end of year	Number of registered premises inspected during year
Offices	—	27	21
Retail Shops . .	—	62	62
Wholesale Shops and Wharehouses	—	2	2
Catering Establishments and Canteens	3	22	22
Fuel Storage Depots	—	1	1
Totals . .	3	114	108

Analysis of Persons Employed in Registered Premises :

CLASS OF WORK PLACE	NUMBER OF PERSONS EMPLOYED
Offices	240
Retail Shops	258
Wholesale Shops and Warehouses . .	28
Catering Establishments	168
Canteens	1
Fuel Storage Depots	3
Total . .	707
Total Males . .	296
Total Females . .	411

During the year no applications were received for exemptions in respect of space, temperature, sanitary conveniences and washing facilities. The number of exemptions current at the end of the year remained at nil.

No prosecutions were instituted during 1966, but a number of informal notices were served and complied with.

In general, it could be said that the inspection of the registered premises revealed that with the exception of items such as thermometers, first-aid equipment, and Abstract of the Act, the premises complied with the requirements of the Act.

Every endeavour is made as time allows to maintain a regular inspection. An annual report is required by the factory inspector showing any change in registered premises, number of visits made, contraventions of the Act, and details of action taken thereon.

ANIMAL BOARDING ESTABLISHMENT ACT 1963

Two licences were issued to keep a Boarding Establishment for Animals during the year.

LOCAL GOVERNMENT ACT 1894
GAME ACT 1831 (LICENCE TO DEAL IN GAME)

One game dealer's licence was issued during the year. This allows the holder to buy game from any person so authorised, and to sell it from their own property within the district.

SCRAP METAL DEALERS ACT 1964

No applications were received in respect of the above act during the year.

FACTORIES ACTS, 1961

There are 78 factories in the district. The following tables show the number of inspections and defects found during the period under review :

Premises	Number on Register	Number of Inspections	Number of Written Notices	Number of Occupiers Prosecuted
(I) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authorities	13	27	—	—
(II) Factories not included in (I) in which Section 7 is enforced by the Local Authority ..	65	97	—	—
(III) Other premises in which Section 7 is enforced by the Local Authority (excluding Outworkers' Premises)	—	—	—	—
TOTAL	78	124	—	—

DEFECTS FOUND

Particulars	Number of Cases in which Defects were found: Found	Re-medied	Referred To H.M.I.	Referred By H.M.I.	No. of cases in which pro-secutions were instituted
Want of cleanliness ..	7	7	—	—	—
Overcrowding	—	—	—	—	—
Unreasonable temperature	1	1	—	—	—
Inadequate ventilation ..	—	—	—	—	—
Ineffective drainage of floors	1	1	—	—	—
Sanitary Conveniences— (a) Insufficient ..	—	—	—	—	—
(b) Unsuitable or defective	6	6	—	—	—
(c) Not separate for sexes ..	—	—	—	—	—
Other offences against the Act (not including offences relating to Outwork) ..	—	—	—	—	—
TOTAL ..	15	15	—	—	—

The following report has been provided by the Engineer and Surveyor Mr. G. E. Dimmack, M.I.Mun.E., M.I.P.H.E. :—

SEWERAGE & SEWAGE DISPOSAL

1. STANNINGTON STATION ROAD

The decline in the pig population resulting from the closing of the Land Settlement Association's Smallholdings has reduced the B.O.D. of the influent reaching these treatment works. Consequently the need to enlarge the works for the treatment of animal wastes has somewhat subsided.

2. MATFEN

Some progress was made during the year on the survey and preparation of a scheme for the provision of a new sewage treatment works and separate foul sewerage system for this Village.

3. ADOPTION OF SEWERAGE AND SEWAGE DISPOSAL WORKS

During the year newly constructed foul and surface water sewerage systems serving residential development at Darras Hall, Ponteland, Hazlerigg, Heddon-on-the-Wall and Whorlton Grange Estate were adopted for maintenance at the public expense as part of the public drainage system.

4. At the 31st December, 1966, the Council controlled 23 Sewage Treatment Works, as follows :—

1. Belsay
2. Berwick Hill
3. Capheaton
4. Dalton
5. Fenwick
6. Harlow Hill
7. Heddon Hall
8. Heddon-on-the-Wall
9. Ingoe
10. Kirkheaton
11. Matfen (Standing Stone)
12. Milbourne (Belsay Road)
13. Milbourne (Hall Farm)
14. Milbourne (Village)
15. Ogle
16. Ponteland (Collingwood Cottages)
17. Ryal
18. Stamfordham
19. Stannington Station Road
20. Stannington Village
21. Stannington — Netherton Training School
22. Wallridge
23. Whalton

together with 6 pumping stations through which sewage is passed to either the Seaton Burn Valley Joint Sewerage Board or to the Ouseburn Sewer of the Newcastle Corporation.

The following table gives an indication of the mileage of the various foul and surface water sewers and pumping mains that are maintained by the Rural District Council :—

LOCATION	Separate Systems		Com-bined	Pumping Mains	No. of Manholes
	Foul	Surface Water			
	Length of Sewers in Lin. Yards			Lin. Yd.	
BELSAY			733		11
BERWICK HILL ..			467		7
BRUNTON PARK ..	6661	6921			232
BURN CLOSE			3220		39
CAPHEATON			392		6
DALTON			157		3
DARRAS HALL .. & DEYNCOURT ..	22990	20848		62	433
DINNINGTON	9083	4936		3387	67
FENWICK	340				5
FRENCHMAN'S ROW ..			600		5
HAZLERIGG	752	1126	3015		81
HEDDON-ON-THE-WALL		677	9761	545	189
KENTON BANK FOOT..	269	295	2600		44
KIRKHEATON			400		16
MILBOURNE	476				7
OGLE			953		11
PONTELAND	8081	6231	7641	3163	451
RYAL	362				6
STAMFORDHAM ..	449	372	3855	30	75
STANNINGTON.. ..			7523	727	57
STANDING STONE ..	175				5
WHALTON	103	103	883		12
WOOLSINGTON ..	3403	756	18657		382
WHORLTON GRANGE ..	3279	2724			121
TOTALS	53090	42265	59057	7914	2132
Equivalent Mileage of each type ..	30.15	24.1	33.6	4.6	

TOTAL MILEAGE OF ALL TYPES — 92.45.

5. DISPOSAL OF SEWAGE TO NEIGHBOURING AUTHORITIES

(a) Gosforth Urban District Council

866 Houses at Brunton Park and Melton Park discharge sewage to a sewer belonging to the Gosforth U.D.C.

(b) Seaton Burn Valley Joint Sewerage Board

The total number of premises now draining to the East and West Pumping Stations at Dinnington and from Hazlerigg and Brunswick Village, to the Longbenton U.D.C. Sewer at Seaton Burn School was 1,227 at the 31st December, 1966.

(c) Newburn Urban District Council

The total number of properties now connected to this Authority's sewer is 45.

(d) City and County of Newcastle upon Tyne

(i) *Brunton Park*

419 Houses discharge by gravity to the Ouseburn Sewer.

(ii) *Newbiggin Hall Estate*

1656 Houses and Flats discharge by gravity to the Ouseburn Sewer via the Council's Trunk Sewer from Brunton Bridge to Point 'Z' at Fawdon.

(iii) *Newbiggin Hall Estate (Phase 1A)*

905 Houses and Flats discharge by gravity to the Black Swine Sewer at Denton Burn. These are mainly properties built by the Newcastle Corporation.

(iv) *Whorlton Grange Estate*

272 Houses, 6 Factories and 1 Service Station, discharge by gravity to the Ouseburn Sewer via the Council's Trunk Sewer at Brunton Bridge.

(v) *Ponteland, Darras Hall, Woolsington Main Drainage*

Sewage discharges by gravity and pumping to the head of the Corporation's Ouseburn Sewer, the present average rate of flow being approximately 1.5 million gallons per day.

5. GENERAL REMARKS

All of the Rural District is now reasonably well served with sewerage and sewage disposal facilities with the exception of Matfen where there is an existing combined drainage system, but the treatment arrangements are primitive.

SUMMARY OF WORK EFFECTED—PRIVY CONVERSIONS

There have been 31 conversions of privies to the water carriage system at the undermentioned premises carried out as part of the improvement works under the Housing Acts 1949/64 :—

Middle Newham (West House), Belsay.
Bank House, Belsay.
Bradford Edge House Farm, Belsay.
Ferney Chesters, Capheaton.
1 and 2 East Shaftoe Hall Cottages, Capheaton.
Burnside Farm Cottage, Matfen.
Nos. 1 and 2 Dewlaw Farm Cottages, Matfen.
East Wallhouses, Matfen.
Diamond View, Ingoe, Matfen.
Kearsley Farmhouse, Matfen.
Kearsley Farm Cottage, Matfen.
Ryal West Side Farmhouse, Ingoe, Matfen.
South Hall, Ingoe, Matfen.
2, 3, 4 and 13 Collingwood Cottages, Ponteland.
Bank Top House, Prestwick, Ponteland (2 dwelling units).
Field House Farm, Ponteland.
Mill Farmhouse, Prestwick, Ponteland.
Garden Cottage, Cheeseburn Grange, Stamfordham.
Gilchester Farm, Stamfordham.
Mainsbank Cottage, Stamfordham.
Stobhill Farmhouse and Cottage, Stamfordham.
West Cottage, Brewery Yard, Stamfordham.
1 Clifton Crossing, Stannington.
Park Farm, Whalton.
Shilvington Cottage, Whalton.

	No. of Inspections during yr.	No. of defects or Contra-ventions of Bye-Laws	No. of Informal Notices served	Defects Remedied by Informal Action	No. of Satutory Notices Served
HOUSING—					
Structural defects	468	77	31	68	—
Defective Food Store		9	9	9	—
Dampness		31	20	18	—
Overcrowding		—	—	—	—
WATER SUPPLY—					
Insufficient		—	—	—	—
Unsatisfactory	45	6	—	6	—
DRAINAGE—					
Insufficient	57		—	—	—
Defective		21	21	21	—
SANITARY CONVENIENCE—					
Insufficient		—	—	—	—
Defective	18	7	7	7	—
Food Premises	976	41	—	41	—
Slaughter Houses	411	1	1	1	—
Tents, Vans, etc.	43	6	—	—	—
Factories and Workplaces	194	34	18	34	—
Insanitary Ashpits and Receptacles	51	21	—	21	—
Atmospheric Pollution	6	1	—	1	—
	2269	255	107	227	—

CONCLUSION

To the Chairman of the Council, the Chairman and members of the Health Committee, and to Dr. H. C. T. Smith, I express my thanks for the support rendered me throughout the year, and to all Chief Officers and Officers for their co-operation.

I also record my appreciation of the satisfactory manner in which the duties of the department have been carried out by Mr. J. Taylor, Deputy C.P.H.I., Mr. R. Hardy, Mr. F. W. Higgins, and Mr. A. McLaren the Rodent Operator.

I would particularly refer to the work of meat inspection at the abattoir in Ponteland where the first three officers devote one third of their working time.

The clerical work of the department has been well taken care of by the efficient application of Miss Mabel Douglas and her assistant, Mrs. A. Ridley.

ERIC WM. STRACHAN,
Chief Public Health Inspector
and Cleansing Superintendent.

R. Robson & Sons, Abbey Press, Hexham.